

IN THE CLAIMS:

Please cancel claims 1-17 without prejudice.

Please add new claims 21-37.

1 --21. (New) An integrated circuit includes a gate structure disposed over
2 a channel, a deep source region heavily doped with dopants of a first
3 conductivity type, a deep drain region heavily doped with dopants of the first
4 conductivity type, a source extension integral the deep source region, and a drain
5 extension integral the deep drain region, wherein the drain extension is deeper
6 than the source extension, wherein the integrated circuit is manufactured by a
7 method, comprising:
8 providing the gate structure between a source location and a drain
9 location in a semiconductor substrate;
10 providing an angled source extension implant in a direction from
11 the source location to the drain location;
12 providing an angled drain extension implant in a direction from the
13 drain location to the source location; and
14 providing a deep source/drain implant at the source location and
15 the drain location.

1 22. (New) The integrated circuit of claim 21, further comprising providing
2 a pair of spacers abutting lateral sides of the gate structure before the deep
3 source drain implant.

1 23. (New) The integrated circuit of claim 22, wherein the providing the
2 source extension step is a low energy, high dose ion implantation step.

1 24. (New) The integrated circuit of claim 23, wherein the drain extension
2 implant step is a medium energy, high dose ion implantation step.

1 25. (New) The integrated circuit of claim 24, wherein a source extension
2 formed by the source extension step is shallower than a drain extension formed
3 by the drain extension implant step.

1 26. (New) The integrated circuit of claim 25, wherein the source
2 extension has approximately 5 times the concentration of dopants of the drain
3 extension.

1 27. (New) The integrated circuit of claim 25, wherein the source
2 extension has a concentration of 5×10^{19} - 1×10^{20} of dopants per centimeter cubed
3 and the drain extension has a concentration of 1×10^{19} - 5×10^{19} dopants per
4 centimeter cubed.

1 28. (New) The integrated circuit of claim 25, wherein the drain extension
2 has a concentration between 1×10^{19} - 5×10^{19} dopants per centimeter cubed.

1 29. (New) The integrated circuit of claim 25, wherein the drain extension
2 is more than 80 nm deep.

1 30. (New) The integrated circuit of claim 27, wherein the gate structure
2 is associated with a N-channel or P-channel with MOSFET.

1 31. (New) An ultra-large-scale integrated circuit including a plurality of
2 field effect transistors, the field effect transistors comprising:
3 a gate structure on a top surface of a semiconductor substrate;
4 a source extension with dopants of a first conductivity type;
5 a drain extension with dopants of the first conductivity type; and
6 forming deep source and drain regions with dopants of the first
7 conductivity type, wherein the gate structure is between the source and drain
8 regions, wherein the drain extension is deeper than the source extension.